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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/530,361	04/28/2000	GUIDO MORUZZI	027650-857	5394

7590 03/30/2006

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EXAMINER	
CHORBAJI, MONZER R	
ART UNIT	**PAPER NUMBER**
1744	

DATE MAILED: 03/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/530,361	MORUZZI, GUIDO	
	Examiner	Art Unit	
	MONZER R. CHORBAJI	1744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 February 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2-6,15,17,18 and 21-32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2-6,15,17,18 and 21-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 April 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This non action is in response to the RCE/amendment received 08/19/2005

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 15, 17, 26 and 29-31are rejected under 35 U.S.C. 102(b) as being anticipated by Kodera et al (U.S.P.N. 4,366,125).

With respect to claims 15, 26 and 29, the Kodera reference teaches an apparatus (figure 1) for sterilizing a packaging sheet material (col.1, lines 8-13) including the following: means for applying a liquid solution of hydrogen peroxide onto the surface of web material into by immersing the material into a hydrogen peroxide bath (col.6, lines 25-28), the apparatus is capable of being connected in sequence to a means for applying a stream of air (figure 1, 42) onto the surface of the packaging sheet material such that the stream of air is capable of substantially removing all but a residual quantity of hydrogen peroxide, the apparatus is capable of being connected in sequence to UV irradiation means (figure 1:34) that is capable of irradiating at wavelength between 200nm and 320 nm (figure 1, C) and the apparatus includes means for advancing (figure 1:3 or 6) the packaging material such that the apparatus is capable of continuously and sequentially advancing the packaging material from the

applying means through the means for directing a stream of air and then to the irradiating means.

With respect to claims 17 and 30-31, the Kodera reference teaches the use of UV irradiation means (figure 1:34) that is capable of irradiating at wavelength between 200nm and 320 nm (figure 1, C).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 18, 27 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kodera et al (U.S.P.N. 4,366,125) as applied to claims 15, 26, 31 and further in view of Castberg et al (U.S.P.N. 5,744,094).

With respect to claims 18, 27 and 32, the Kodera reference fails to disclose the use of an excimer lamp. The Castberg reference, which is in the art of sterilizing

packaging materials using hydrogen peroxide and UV, discloses that it known to use an excimer lamp (col.2, lines 36-38). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of the Kodera reference to include an excimer lamp as disclosed by the Castberg reference since the geometry of the beam may be altered in response to changes in fluid characteristics, i.e., aqueous hydrogen peroxide solution, in order to improve the efficiency of sterilization of wet surfaces (col.2, lines 34-38).

6. Claims 4 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doucette et al (U.S.P.N. 3,513,627) in view of Kodera et al (U.S.P.N. 4,366,125), DiGeronimo (U.S.P.N. 4,494,357) and further in view of Loliger et al (U.S.P.N. 3,692,468).

With respect to claim 4, The Doucette reference discloses an apparatus and a method (figure 1 and col.4, lines 2551) for sterilizing surfaces of webs contaminated with microorganisms that includes the following: immersing the web into a liquid sterilant (figure 1:73) over an inherent time interval, applying heat from heater plates (figure 1:89 and col.3, lines 58-62) for drying the sterilant so that a substantial amount of the sterilant is removed from the surface of the web, then UV irradiating the web (figure 1:91). However, with respect to claim 4, the Doucette reference fails to teach the following: the use of liquid hydrogen peroxide, the use of air for retaining a residual quantity of hydrogen peroxide absorbed by or located adjacent to microorganisms present on the surface of the sheet material, UV wave length of about 200 nm and 320 nm, temperature of the liquid hydrogen peroxide and contact time from 0.5 seconds to 2

seconds. The Kodera reference teaches a method for sterilizing a packaging sheet material (col.1, lines 8-13) including the following: applying a liquid solution of hydrogen peroxide to the surface of a packaging material by immersing the material in a hydrogen peroxide bath (col.6, lines 25-28) at a certain temperature (col.4, lines 23-25), which includes microorganisms, applying a stream of air to the packaging sheet material for removing a substantial amount of hydrogen peroxide from the surface of the packaging material (col.5, lines 10-15), irradiating the surface with UV light at a certain wavelength value (figure 1, C) and immersing for the material for one second (col.6, lines 25-28 and lines 36-39). The specification only teaches of microorganisms without providing any significance. As a result, the microorganisms present on the surfaces of the packaging sheet material in the Kodera reference intrinsically absorb the residual hydrogen peroxide left after the step of drying. In addition, the Kodera reference teaches the importance of the synergistic effect produced by the combination of hydrogen peroxide and UV (col.1, lines 13-18). Clearly the Kodera process provides for a trace quantity of hydrogen peroxide for its interaction with the UV light. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute the germicidal liquid of the Doucette reference with the liquid hydrogen peroxide because of the synergistic sterilization effect of combining hydrogen peroxide with UV light (Kodera reference, col.1, lines 15-18), to immerse web material for one second so that the sterilization process is performed over shorter cycles and to substitute heater plates with hot air since aseptic hot air sterilizes and dries the two surfaces of the web material (Kodera reference, col.5, lines 12-14).

However, the Kodera reference fails to explicitly disclose a wavelength range value for the UV light and a temperature range value for the hydrogen peroxide bath. The DiGeronimo reference, which is in the art of sterilizing packaging material, teaches irradiating at 254 nm (col.2, lines 50-52). As a result, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of the Doucette reference by irradiating at 254 nm as taught by the DiGeronimo reference since the lamp at such a wavelength operates at 99.9% efficiency (col.2, lines 50-52).

The DiGeronimo reference fails to disclose a temperature range value for the hydrogen peroxide bath, but the Loliger reference, which is in the art of sterilizing packaging material, teaches maintaining the hydrogen peroxide bath temperature at 60 degree Celsius (col.2, lines 70-71). As a result, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of the Doucette reference by heating the hydrogen peroxide bath to 60 degree Celsius as taught by the Loliger reference since it is known in the art that at such a temperature packing sheet residence time in the bath is only 6 second that even kills heat-resistant germs (col.1, lines 30-33).

With respect to claim 28, The Doucette reference discloses an apparatus and a method (figure 1 and col.4, lines 2551) for sterilizing surfaces of webs contaminated with microorganisms that includes the following: immersing the web that is inherently hydrophobic into a liquid sterilant (figure 1:73) over an inherent time interval, applying heat from heater plates (figure 1:89 and col.3, lines 58-62) for drying the sterilant so that

a substantial amount of the sterilant is removed from the surface of the web, then UV irradiating the web (figure 1:91). However, the Doucette reference fails to teach the following: the use of liquid hydrogen peroxide, the use of air for retaining a residual quantity of hydrogen peroxide absorbed by or located adjacent to microorganisms present on the surface of the sheet material, UV wave length of about 200 nm and 320 nm, temperature of the liquid hydrogen peroxide, contact time from 0.5 seconds to 2 seconds and a temperature of the heated air. The Kodera reference teaches a method for sterilizing a packaging sheet material (col.1, lines 8-13) including the following: applying a liquid solution of hydrogen peroxide to the surface of a packaging by immersing the material in a hydrogen peroxide bath (col.6, lines 25-28) at a certain temperature (col.4, lines 23-25), which includes microorganisms, applying a stream of air the packaging sheet material for removing a substantial amount of hydrogen peroxide from the surface of the packaging material (col.5, lines 10-15), irradiating the surface with UV light at a certain wavelength value (figure 1, C) and immersing for the material for one second (col.6, lines 25-28 and lines 36-39).The specification only teaches of microorganisms without providing any significance. As a result, the microorganisms present on the surfaces of the packaging sheet material in the Kodera reference intrinsically absorb the residual hydrogen peroxide left after the step of drying. In addition, the Kodera reference teaches the importance of the synergistic effect produced by the combination of hydrogen peroxide and UV (col.1, lines 13-18). Clearly the Kodera process provides for a trace quantity of hydrogen peroxide for its interaction with the UV light. Thus, it would have been obvious to one having ordinary skill in the art

at the time the invention was made to substitute the germicidal liquid of the Doucette reference with the liquid hydrogen peroxide because of the synergistic sterilization effect of combining hydrogen peroxide with UV light (Kodera reference, col.1, lines 15-18), to immerse web material for one second so that the sterilization process is performed over shorter cycles and to substitute heater plates with hot air since aseptic hot air sterilizes and dries the two surfaces of the web material (Kodera reference, col.5, lines 12-14).

The Kodera reference fails to explicitly disclose a wavelength range value for the UV light, a temperature range value for the hydrogen peroxide bath and a temperature value range for the drying air. The DiGeronimo reference, which is in the art of sterilizing packaging material, teaches irradiating at 254 nm (col.2, lines 50-52) and a temperature value range for the drying air (col.3, lines 13-14). As a result, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of the Doucette reference by irradiating at 254 nm as taught by the DiGeronimo reference since the lamp at such a wavelength operates at 99.9% efficiency (col.2, lines 50-52).

The DiGeronimo reference fails to disclose a temperature range value for the hydrogen peroxide bath, but the Loliger reference, which is in the art of sterilizing packaging material, teaches maintaining the hydrogen peroxide bath temperature at 60 degree Celsius (col.2, lines 70-71). As a result, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of the Doucette reference by heating the hydrogen peroxide bath to 60 degree Celsius as taught by the Loliger reference since it is known in the art that at such a temperature

packing sheet residence time in the bath is only 6 second that even kills heat-resistant germs (col.1, lines 30-33).

7. Claims 2-3, 5 and 21-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doucette et al (U.S.P.N. 3,513,627) in view of Kodera et al (U.S.P.N. 4,366,125) and further in view of DiGeronimo (U.S.P.N. 4,494,357).

With respect to claims 21 and 23, the Doucette reference discloses an apparatus and a method (figure 1 and col.4, lines 2551) for sterilizing surfaces of webs contaminated with microorganisms that includes the following: immersing the web into a liquid sterilant (figure 1:73) over an inherent time interval, applying heat from heater plates (figure 1:89 and col.3, lines 58-62) for drying the sterilant so that a substantial amount of the sterilant is removed from the surface of the web, then UV irradiating the web (figure 1:91). However, with respect to claims 21 and 23, the Doucette reference fails to teach the following: the use of liquid hydrogen peroxide, the use of air for retaining a residual quantity of hydrogen peroxide absorbed by or located adjacent to microorganisms present on the surface of the sheet material and UV irradiating at wave length of about 200 nm and 320 nm. The Kodera reference teaches a method for sterilizing a packaging sheet material (col.1, lines 8-13) including the following: applying a liquid solution of hydrogen peroxide to the surface of a packaging by advancing (figure 1, 3) the material into a hydrogen peroxide bath for immersing (means for applying) the material into a hydrogen peroxide bath (col.6, lines 25-28), which includes microorganisms, applying a stream of hot air (figure 1, 42) to the packaging sheet material for removing a substantial amount of hydrogen peroxide from the surface of the

packaging material (col.5, lines 10-15) and irradiating the surface with UV light (figure 1, 34) at a certain wavelength value (figure 1, C) by directing UV light onto the surface of the material (figure 1, 34 and 1). The specification only teaches of microorganisms without providing any significance. As a result, the microorganisms present on the surfaces of the packaging sheet material in the Kodera reference intrinsically absorb the residual hydrogen peroxide left after the step of drying. In addition, the Kodera reference teaches the importance of the synergistic effect produced by the combination of hydrogen peroxide and UV (col.1, lines 13-18). Clearly the Kodera process and apparatus provide for a trace quantity of hydrogen peroxide for its interaction with the UV light. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute the germicidal liquid of the Doucette reference with the liquid hydrogen peroxide because of the synergistic sterilization effect of combining hydrogen peroxide with UV light (Kodera reference, col.1, lines 15-18), to immerse web material for one second so that the sterilization process is performed over shorter cycles and to substitute heater plates with hot air since aseptic hot air sterilizes and dries the two surfaces of the web material (Kodera reference, col.5, lines 12-14).

The Kodera reference fails to explicitly disclose a wavelength range value for the UV light, but the DiGeronimo reference teaches irradiating at 254 nm (col.2, lines 50-52). As a result, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of the Doucette reference by irradiating at 254 nm as taught by the DiGeronimo reference since the lamp at such a wavelength operates at 99.9% efficiency (col.2, lines 50-52).

With respect to claims 5 and 22, the Doucette reference discloses a method (figure 1 and col.4, lines 2551) for sterilizing surfaces of webs that are inherently hydrophobic contaminated with microorganisms that includes the following: immersing the web into a liquid sterilant (figure 1:73) over an inherent time interval, applying heat from heater plates (figure 1:89 and col.3, lines 58-62) for drying the sterilant so that a substantial amount of the sterilant is removed from the surface of the web, then UV irradiating the web (figure 1:91). However, with respect to claims 5 and 22, the Doucette reference fails to teach the following: the use of liquid hydrogen peroxide having a certain percent by weight value for hydrogen peroxide, the use of air for retaining a residual quantity of hydrogen peroxide absorbed by or located adjacent to microorganisms present on the surface of the sheet material, UV irradiating at wave length of about 200 nm and 320 nm and a temperature value for the heated air. The Kodera reference teaches a method for sterilizing a packaging sheet material (col.1, lines 8-13) including the following: applying a liquid solution of hydrogen peroxide to the surface of a packaging by advancing (figure 1, 3) the material into a hydrogen peroxide bath for immersing (means for applying) the material into a hydrogen peroxide bath (col.6, lines 25-28), which includes microorganisms, applying a stream of hot air (figure 1, 42) the packaging sheet material for removing a substantial amount of hydrogen peroxide from the surface of the packaging material (col.5, lines 10-15), irradiating the surface with UV light (figure 1, 34) at a certain wavelength value (figure 1, C) by directing UV light onto the surface of the material (figure 1, 34 and 1) and means for advancing the packaging sheet material (figure 1, 3). The specification only teaches of

microorganisms without providing any significance. As a result, the microorganisms present on the surfaces of the packaging sheet material in the Kodera reference intrinsically absorb the residual hydrogen peroxide left after the step of drying. In addition, the Kodera reference teaches the importance of the synergistic effect produced by the combination of hydrogen peroxide and UV (col.1, lines 13-18). Clearly the Kodera process and apparatus provide for a trace quantity of hydrogen peroxide for its interaction with the UV light. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute the germicidal liquid of the Doucette reference with the liquid hydrogen peroxide because of the synergistic sterilization effect of combining hydrogen peroxide with UV light (Kodera reference, col.1, lines 15-18) and to substitute heater plates with hot air since aseptic hot air sterilizes and dries the two surfaces of the web material (Kodera reference, col.5, lines 12-14).

The Kodera reference fails to teach the following: a wavelength range value for the UV light, a concentration of at least 10% by weight and a temperature value range for the drying air. The DiGeronimo reference teaches the following: irradiating at 254 nm (col.2, lines 50-52), a concentration of at least 10% by weight (the DiGeronimo reference teaches in col.3, lines 10-11, that a 30% hydrogen peroxide solution is used without specifying whether the percentage is weight or volume. However, assuming a 100 ml of solution and using the density of hydrogen peroxide, a 30 ml of hydrogen peroxide corresponds to 42.2 g of hydrogen peroxide, which is equivalent to 38 percent by weight) and a temperature value range for the drying air (col.3, lines 13-14). As a

result, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of the Doucette reference by irradiating at 254 nm as taught by the DiGeronimo reference since the lamp at such a wavelength operates at 99.9% efficiency (col.2, lines 50-52).

With respect to claims 2-3 and 24, the Doucette reference discloses a method (figure 1 and col.4, lines 2551) for sterilizing surfaces of webs by immersing the web into a liquid sterilant (figure 1:73), but fails to teach the use of liquid hydrogen peroxide. The Kodera reference discloses hydrogen peroxide bath concentration of 5% (col.6, lines 8-10). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute the germicidal liquid of the Doucette reference with the liquid hydrogen peroxide because of the synergistic sterilization effect of combining hydrogen peroxide with UV light (Kodera reference, col.1, lines 15-18).

The Kodera reference fails to teach hydrogen peroxide concentration of up to 50% or between 20% to 40%; however, the DiGeronimo reference teaches in col.3, lines 10-11, that a 30% hydrogen peroxide solution is used without specifying whether the percentage is weight or volume. However, assuming a 100 ml of solution and using the density of hydrogen peroxide, a 30 ml of hydrogen peroxide corresponds to 42.2 g of hydrogen peroxide, which is equivalent to 38 percent by weight. As a result,, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of the Doucette reference by optimizing the hydrogen peroxide concentration since such a modification is a matter of routine experimentation that depends on how much the packaging sheet material is contaminated with

microorganisms, for example, heavily contaminated material requires higher concentration values for hydrogen peroxide.

With respect to claim 25, the Doucette reference discloses a method (figure 1 and col.4, lines 2551) for sterilizing surfaces of webs by immersing the web into a liquid sterilant (figure 1:73) and applying heat from heater plates (figure 1:89 and col.3, lines 58-62) for drying the sterilant so that a substantial amount of the sterilant is removed from the surface of the web. The Doucette reference fails to teach the use of heated air with a certain temperature; however, the Kodera reference applies hot air (figure 1, 42 and 1) to the surface of the packaging sheet material without explicitly disclosing its temperature. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute the germicidal liquid of the Doucette reference with the liquid hydrogen peroxide because of the synergistic sterilization effect of combining hydrogen peroxide with UV light (Kodera reference, col.1, lines 15-18) and to substitute heater plates with hot air since aseptic hot air sterilizes and dries the two surfaces of the web material (Kodera reference, col.5, lines 12-14).

The Kodera reference fails to disclose an explicit temperature for the hot air; however, the DiGeronimo reference teaches applying an air stream of a temperature range value of between 150 to 155 degree Celsius (col.3, lines 13-14). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of the Doucette reference by drying the packaging sheet material with air heated to a temperature of 150 degree Celsius as taught by the

DiGeronimo reference since such a modification is a matter of routine experimentation that depends on how the desired amount of hydrogen peroxide removal intended.

8. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Doucette et al (U.S.P.N. 3,513,627) in view of Kodera et al (U.S.P.N. 4,366,125), DiGeronimo (U.S.P.N. 4,494,357) as applied to claim 21 and further in view of Lagunas-Solare et al (U.S.P.N. 5,364,645).

With respect to claim 6, the Doucette reference, the Kodera reference and the DiGeronimo reference all fail to disclose the use of polychromatic UV light source. The Lagunas-Solare reference, which is in the art of surface microbial disinfection, teaches that it is known to use Polychromatic UV light for surface microbial disinfection (col.1, lines 38-41). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify method of Doucette reference to include a polychromatic UV light source as taught by the Lagunas-Solare reference since such a source is known to be effective in surface microbial disinfection (col.1, lines 51-52 and lines 9-11).

Response to Arguments

9. Applicant's arguments with respect to claims 2-6, 15, 17-18 and 21-32 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Hatanaka et al (U.S.P.N. 4,797,255) reference teaches

applying hydrogen peroxide vapor followed by air drying step then followed by UV light irradiation step.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MONZER R. CHORBAJI whose telephone number is (571) 272-1271. The examiner can normally be reached on M-F 9:00-5:30.

12. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, GLADYS J. CORCORAN can be reached on (571) 272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

13. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Monzer R. Chorbaji MRC
Patent Examiner
AU 1744
03/20/2006

GLADYS J. CORCORAN
PRIMARY EXAMINER